

**REMARKS**

Claims 74-127, 129-131, 140, 158, 162, 164, 169-173 are pending, claims 76, 99, 100, 101, 116 and 131 have been cancelled, and claims 74, 75, 81, 97, 106, 109, 124, 129, 130, 162, 169 and 170 have been amended. The claim amendments find basis in the claims as originally filed and in the specification throughout (e.g., paragraphs 0028, 0043, 0270, and 0307). Accordingly, entry of the claim amendments will not introduce any prohibited new matter.

Claim Objections

Claim 106 was objected to because of an alleged typographical error. Claims 76, 99, 116 and 131 were objected to as allegedly being in improper dependent form. Claim 106 has been amended and claims 76, 99, 116, and 131 have been cancelled herein. Accordingly, Applicant respectfully requests withdrawal of the outstanding objections and submits that claim 106 is now in condition for allowance.

Claim Rejections

The Office rejected claims in the outstanding action as summarized hereafter:

- i. Claims 74-108, 112-114, 124-127, 129-131, 140 and 158 were rejected under 35 U.S.C. 112, first paragraph as allegedly omitting a scoring step;
- ii. Claims 81, 100, 101, and 169-173 were rejected under 35 U.S.C. 112, second paragraph as allegedly being indefinite;
- iii. Claims 74-127, 129-131, 140, 158, 162, 164, and 169-173 were provisionally rejected for alleged obviousness-type double patenting over U.S. Application No. 10/933,611.

The claim amendments herein are introduced solely to expedite prosecution without prejudice or disclaimer of any previously claimed subject matter. Applicant has not dedicated or abandoned any unclaimed subject matter and has not acquiesced to any rejections or objections made by the Office by introducing the amendments herein. Applicant expressly reserves the right to pursue prosecution of any presently excluded or cancelled subject matter or embodiments in one or more future continuing patent applications.

Rejection for alleged omission

Claims 74-108, 112-114, 124-127, 129-131,140 and 158 were rejected under 35 U.S.C. 112, first paragraph, for alleged omission of a scoring step. Applicant respectfully traverses the rejection in its entirety, and respectfully submits that the rejection is inapplicable to the claims herein.

Claims 74, 124,129 and 169 specify an algorithm is utilized to determine the sequence of the one or more sequence variations in the target nucleic acid, or identify a sequence variation, from the reduced set of candidate sequence variations. These claims are clear without a scoring step. Scoring is not necessarily the same as analyses by an algorithm. Use of an algorithm and scoring find support throughout the specification (e.g., paragraphs 0028 and 0043). This amendment is consistent with the reasons for allowance for claims 115 and 117-123 as stated on page 10 of the Office action.

Claim 97 was rejected for reciting PNA (peptide nucleic acid). Claim 97 has been amended to omit the term "PNA."

Accordingly, the outstanding rejections for alleged indefiniteness are inapplicable to claims 74-108, 112-114, 124-127, 129-131,140 and 158 recited herein. Applicant therefore requests withdrawal of outstanding rejections under 35 U.S.C. 112, first paragraph.

Rejections for alleged indefiniteness

Claims 81, 100, 101, and 169-173 were rejected under 35 U.S.C. 112, second paragraph, for alleged indefiniteness.

Claims 100 and 101 have been cancelled. Claims 81 and 169 have been amended to more particularly point out the claimed subject matter. Specifically, claim 81 has been amended to depend from claim 79 and claim 169 has been amended to omit the phrase "in (e)."

Accordingly, the outstanding rejections for alleged indefiniteness are inapplicable to claims 81, 100, 101, and 169-173 recited herein. Applicant therefore requests withdrawal of outstanding rejections under 35 U.S.C. 112, second paragraph.

Provisional double patenting rejection

Claims 74-127, 129-131, 140, 158, 162, 164, and 169-173 were provisionally rejected for alleged obviousness-type double patenting over U.S. Patent Application No. 10/933,611 ("the '611 application"). Section 804 I(B)(1) in the MPEP states:

If a "provisional" nonstatutory obviousness-type double patenting (ODP) rejection is the only rejection remaining in the earlier filed of the two pending applications, while the later-filed application is rejectable on other grounds, the examiner should withdraw that rejection and permit the earlier-filed application to issue as a patent without a terminal disclaimer.

Applicant respectfully submits that these conditions are met and that withdrawal of this provisional rejection is warranted. The filing date of the instant application is November 26, 2003, which is earlier than the September 2, 2004 filing date of the '611 application. The '611 application also is rejected on other grounds. And in the instant application, the provisional non-statutory obviousness-type double patenting rejection will be the sole rejection remaining after the Office withdraws the rejections under 35 U.S.C. 112, first and second paragraphs. Applicant therefore respectfully requests withdrawal of the outstanding provisional rejection for alleged non-statutory obviousness-type double patenting.

### **CONCLUSIONS**

Applicant respectfully submits all pending claims will be in condition for allowance upon entry of the amendments herein. Applicant respectfully solicits a prompt notification to this effect, and the Examiner is encouraged to contact the undersigned representative (contact information below) to promptly resolve any remaining issues or questions.

In the unlikely event a fee calculation document or other pertinent document is separated from this submission and the Office determines that an extension and/or other relief is required, Applicant petitions for any required relief, including extensions of time, and authorizes the Assistant Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to Deposit Account No. **50-3473**.

Respectfully submitted,

Date: February 3, 2010

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